

PROCEEDINGS
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NEW MOLES OF THE GENUS SCALOPUS.

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While engaged in a monographic revision of North American Talpidæ, based mainly upon the Biological Survey Collection, the writer has found several undescribed species and subspecies of *Scalopus*. Since the final paper on the group will not be published for some time, the following diagnoses are issued now:

Scalopus aquaticus howelli* subsp. nov.

Type, adult ♂, skin and skull, No. 177,931, U. S. National Museum, Biological Survey Collection, from Autaugaville, Alabama; collected January 4, 1912, by L. S. Golsan.

General characters.—Intermediate in size between *Scalopus a. aquaticus* and *S. a. australis*, usually paler than either; skull flat, less angular than that of *aquaticus*; rostrum long and narrow.

Color.—Type, in full winter pelage: back dark drab becoming buffy brown on nape and head, nose and wrists slightly tinged with ochraceous tawny; beneath similar to back but much tinged with tawny-olive.

Measurements.—Type, measured in the flesh: total length, 152; tail vertebrae, 20; hind foot, 18. Skull of type: condylobasal length, 32.0; greatest length, 32.7; palatilar length, 13.1; breadth across mastoids, 17.1; interorbital constriction, 7.4; maxillary tooth row, 10.2; mandibular molar-premolar row, 10.1.

Remarks.—*Scalopus a. howelli* is in many respects an intermediate form between *aquaticus* and *australis*; it differs from each in cranial characters. Its geographic range extends from eastern North Carolina and South Carolina west across northern Georgia, central Alabama and southern Mississippi.

***Scalopus aquaticus machrinoides* subsp. nov.**

Type, adult ♂, skin and skull, No. 169,717, U. S. National Museum, Biological Survey Collection, from Manhattan, Kansas; collected June 1, 1910, by W. E. Berg.

* Named for Arthur H. Howell, who has contributed much towards our knowledge of the mammals of the southern United States.

General characters.—Exceeded in size only by *Scalopus a. machrinus*, from which it differs also in its more grayish coloration with a greater tendency in full pelage towards a silvery sheen.

Color.—In late winter pelage: upper parts ranging from bistre to clove brown, becoming paler on face and wrists; underparts slightly paler than back, and usually showing more slate-color of base of hairs, washed ventrally with raw umber or mummy brown.

Measurements.—Skull of type: condylobasal length, 37.1; greatest length, 37.7; palatilar length, 15.5; breadth across mastoids, 19.4; interorbital constriction, 8.0; maxillary tooth row, 12.1; mandibular molar-premolar row, 12.0.

Remarks.—This is the mole of the humid region west of the Mississippi River and north of southern Missouri; it is found as far west as eastern Kansas, and the mouth of the Sioux River, South Dakota. Its affinities, as have been intimated, are with *machrinus*, from which it can be easily separated by its smaller size and shorter skull.

***Scalopus aquaticus pulcher* subsp. nov.**

Type, adult ♂, skin and skull, No. 170,698, U. S. National Museum, Biological Survey Collection, from Delight, Arkansas; collected January 20, 1911, by W. G. Savage.

General characters.—Size about that of *Scalopus a. aquaticus*, hind foot larger; skull larger than that of *aquaticus*, flatter, less swollen supra-orbitally, wider interorbitally; supraoccipital wider than in *aquaticus*; skull narrower through mastoids than that of *machrinoides*, with narrower rostrum and smaller teeth. Slightly larger than *aereus*; skull relatively wider interorbitally, through mastoids and through rostrum, flatter and more angular than that of *aereus*.

Color.—Full winter pelage: back dark fuscous with many hairs tipped with pearl gray, giving in places a slightly frosted appearance; top of head mummy brown; nose cinnamon-brown; underparts sepia, showing much blackish plumbeous of base of hairs.

Measurements.—Type, measured in the flesh: total length, 164; tail vertebrae, 25; hind foot, 22. Skull of type: condylobasal length, 35.0; greatest length, 35.8; palatilar length, 14.6; breadth across mastoids, 17.8; interorbital constriction, 7.7; maxillary tooth row, 11.1; mandibular molar-premolar row, 10.8.

Remarks.—This mole is confined to the humid region of southwestern Arkansas, eastern Texas and western Louisiana, where it appears to be locally common.

Scalopus aquaticus caryi* subsp. nov.

Type, young adult ♂, skin and skull, No. 116,799, U. S. National Museum, Biological Survey Collection, from Neligh, Nebraska; collected September 18, 1901, by Merritt Cary. Original number 307.

General characters.—Palest known member of the genus *Scalopus*; in

* Named for Merritt Cary, formerly of the U. S. Biological survey.

general characters most nearly like *Scalopus a. intermedius*, but much paler and lacking ochraceous suffusion on nose and wrists; slightly smaller than *intermedius*, with skull actually shorter and relatively broader through mastoids.

Color.—In autumn pelage: back light drab slightly tending towards avellaneous, becoming lighter on head and shading in some cases into ivory yellow on nose; underparts much the same color as back, more mixed with neutral gray and occasionally washed with Saccardo's umber or cinnamon-brown.

Measurements.—Type, measured in the flesh: total length, 160; tail vertebrae, 31.5; hind foot, 22. Skull of type: condylobasal length, 33.9; greatest length, 34.6; palatilar length, 14.2; breadth across mastoids, 17.9; interorbital constriction, 8.2; maxillary tooth row, 11.1; mandibular molar-premolar row, 10.9.

Remarks.—This form can be readily distinguished from all other moles with which it is likely to be confused by its pale color and lack of ochraceous suffusions. It appears to be the mole of the northern plains region from Kansas north to northern Nebraska, and from central Nebraska west to eastern Colorado.

***Scalopus inflatus* sp. nov.**

Type, young adult, sex unknown, skin and skull, No. 52,709, U. S. National Museum, Biological Survey Collection, from State of Tamaulipas, Mexico (45 miles from Brownsville, Texas); collected in 1892 by Frank B. Armstrong.

General characters.—Larger than *Scalopus a. texanus*, color less ochraceous; skull high and arched, with prelacrymal region much swollen; rostrum broad; audital bullae high and well defined; zygomata heavy; posterior edge of lacrymal foramen meets zygomaticum at nearly right angle; mandible heavy; outer groove in third upper premolar pronounced; first lower premolar small and inconspicuous.

Color.—Back between wood brown and drab, becoming ochraceous-buff on cheeks; underparts general tone of color much as on back but more mixed with mouse gray.

Measurements.—Skull of type: palatilar length, 13.4; breadth across mastoids, 17.0; interorbital constriction, 7.1; maxillary tooth row, 11.1; mandibular molar-premolar row, 11.0.

Remarks.—The description of this remarkable new mole is based upon a single specimen in the Biological Survey Collection, which has remained for several years with the skull inside the skin. When the skull was removed it showed many characters warranting its recognition as a distinct species. Unfortunately the specimen is imperfect; it lacks complete data, the pelage is rather ragged and perhaps faded; the skull has the posterior section of the braincase back of the parietals and basioccipital broken away.